

What is claimed is:

1. A cell-based switch that is capable of being utilized with fibre channel frames comprising:

5 a cell-based switch fabric wherein cells in said switch fabric are packed as a fibre channel frame is received and immediately transmitted through said switch fabric.

10 2. A cell-based switch according to claim 1, wherein said switch fabric is capable of providing an end of packet (EOP) character to a cell in the packet.

3. A cell based switch according to claim 2, wherein said EOP character is provided at the beginning of said cell.

15 4. A cell based switch according to claim 2, wherein said EOP character is provided at the end of said cell.

5. A method for rendering a fixed length cell-based switch fabric usable with a variable length frame-based protocol comprising

20 releasing a switch connection prior to transmission of the number of cells corresponding to the maximum packet length of a packet in the frame-based protocol, and

triggering said releasing on recognition of an End of Packet (EOP) indicator set in any cell of a data stream.

25 6. A method according to claim 5, wherein said triggering is enabled by a specific act of setting a register bit and/or connecting a pin to Vcc or ground.

7. A method according to claim 5, wherein releasing defaults to an inactive state upon reset.
- 5 8. A method according to claim 5, wherein the variable length frame based protocol is Fibre Channel.
9. The method according to claim 5, wherein said EOP indicator is located at the beginning of each cell.
- 10 10. The method of claim 9 further comprising the steps of:
buffering said packet at the input switch of the cell-based switch fabric;
and
generating said EOP indicator; and
15 inserting said EOP in beginning fields of said data stream.
11. The method according to claim 9 wherein said EOP indicator is a single bit.
- 20 12. The method according to claim 5, wherein said EOP is located at the end of said cell.
13. The method according to claim 12, further comprising the steps of:
transmitting said cell as soon as it becomes available;
25 buffering said packet at the output switch of the cell-based switch fabric;
calculating said EOP indicator;

inserting said EOP in the fields at the end of said cell.

14. An apparatus for rendering a fixed length cell-based switch fabric usable with a variable length frame-based protocol comprising

5 means for releasing a switch connection prior to transmission of the number of cells corresponding to the maximum packet length of a packet in the frame-based protocol, and

means for triggering said releasing on recognition of an End of Packet (EOP) indicator set in any cell of a data stream.

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15. An apparatus according to claim 14, wherein said means for triggering is enabled by a specific act of setting a register bit and/or connecting a pin to Vcc or ground.

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16. A apparatus according to claim 14, wherein said means for releasing will default to an inactive state upon reset.

17. A apparatus according to claim 14, wherein the variable length frame based protocol is Fibre Channel.

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18. An apparatus according to claim 14, wherein the EOP indicator is located at the beginning of said cell.

19. The apparatus of claim 20 further comprising the steps of:

25 means for buffering said packet at the input switch of the cell-based switch fabric;

means for generating said EOP indicator; and
means for inserting said EOP into the first cell of said data stream.

20. The apparatus of claim 16 wherein said EOP indicator is a single bit.

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